Pharmaceutical company trades complexity for visibility to de-risk cloud migration

ABOUT

Industry
Pharmaceutical

Headquarters
Canberra, Australia

OBJECTIVE

Untangle the complexity of 10k workloads to create a smarter cloud migration plan.

SUCCESS

"Know before you go" visibility to de-risk migration and reduce cloud costs.

THE CHALLENGE:

Workload complexity creates open questions about risk and cost

A leading pharmaceutical company was starting its cloud journey by building a plan for its ~10,000 workloads in four data centers globally. They needed to determine which workloads would move to the public cloud and which would stay on premises. Because of the complexity of the environment, they needed to understand the various application dependences to avoid disruptions that an ill-planned migration could create. And they also wanted to understand what it would cost to run their workloads in the public cloud.

THE SOLUTION:

Comprehensive data for more informed cloud migration planning

The company was already using Virtana Infrastructure Performance Management (IPM) to optimize their data centers. Thanks to the comprehensive data that the solution delivers, they had been able to push utilization from the assets they'd already paid for up to the edge without creating performance issues– enabling them to extract maximum value from those investments. Now they needed superior visibility for cloud migration. Virtana Workload Placement, the Virtana Platform solution designed to help organizations de-risk cloud migration, was the perfect choice. The AI-powered monitoring, analytics, and automation platform combines massive ingest of wire, machine, and ecosystem data with advanced analytics to proactively optimize the performance, availability, capacity, and efficiency of mission-critical infrastructure.

First, they performed deep discovery at the origin via a baseline assessment. This revealed the true state of the environment and identified issues that aren't significant on premises but can have a negative impact in the cloud. Think of it this way: You're living in a house that has a couple of closets of "junk" that's out of your way and not affecting your day-to-day life. But when it's time to move, it doesn't make sense to take all of that unused, unwanted stuff with you—that's extra expense and effort you don't need. In de data center, in can be hard to find that "junk", such as bully and zombie VMs, but Virtana Workload Placement's agentless discovery makes it easy.

Next, they mapped application dependencies to understand which workloads needed to be moved together. While there are many tools that can show dependencies, the output is typically a gnarled tangle that's impossible to parse, particularly for a large enterprise. Virtana goes further and applies data science analytics to the process to remove noise, such as from shared services like domain servers that talk to every application, and they apply community detection to group applications that are talking to each other.

Once the move groups were defined, the final step was to understand what it would all cost when running in the cloud so they could make the optimal workload placement decisions. With Virtana Workload Placement, the company was able to perform the cloud mapping across multiple critical dimensions (CPU MHz, memory utilization, read/write throughput/IOPS, and network receive/transmit) at various levels (as-is, peak maximum value, 99th percentile, and 95th percentile) to truly understand the characteristics of their workloads and the associated costs and performance implications.

THE RESULTS:

Better visibility enables better decisions and lower costs

The baseline assessment uncovered "problem" VMs that accounted for around 10% of the total VM pool. By discovering and addressing them up front, the company avoided unnecessarily adding risks to the migration process and cost to the ultimate cloud deployment. The application dependency mapping process provided them with a manageable list of dependencies which allowed them to make informed decisions about how to create move groups and prioritize them into migration events or migrations waves, as well as identify certain applications that should remain on premises. And with high-precision cloud mapping information, they were able to make smarter, data-driven workload placement decisions that saved them $2 million per year.

To connect with a Virtana specialist:

email: info@virtana.com
call: +1-408-579-4000
visit: virtana.com